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To Whom It May Concern:

Enclosed are four copies of very recent research findings to be considered as public comments for the FCC hearings on television program ratings (CS Docket No. 97-55). Although the deadline for filing comments has passed, we believe that the findings of "Forbidden Fruit Versus Tainted Fruit: Children's Use of Age-Categorized Television Advisory Labels" will be relevant and useful to the proceedings. Given the lack of scholarly research on television ratings, we hope that this information can become part of the deliberations. An IBM formatted disk version of the report in Word Perfect 7.0 is also included. Please let us know if you would like more information.

Sincerely,

James E. Sneegas, Ph.D.  
Associate Professor

Tamyra A. Plank, M.A.  
Lecturer

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Forbidden Fruit Versus Tainted Fruit:

Children's Use of Age-Categorized Television Advisory Labels

James E. Sneegas and Tamyra A. Plank

Southwest Missouri State University

Abstract

The study assessed use and knowledge of age-categorized television program ratings (TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-M) for 203 fourth and fifth graders from Missouri and California. Ability to distinguish between pairs of rating codes was low and reported use of the codes for program selection and to aid household viewing rules was low, with girls reporting significantly more household viewing rules than boys. Evidence for a tainted fruit effect of rating codes was found for girls, who were significantly more likely than boys to prefer age-appropriate programs. Evidence for a forbidden fruit effect of rating codes was found for boys, who were significantly more likely than girls to prefer age-inappropriate programs.

## Forbidden Fruit Versus Tainted Fruit:

### Children's Use of Age-Categorized Television Advisory Labels

Age-categorized television advisory labels, modeled after the MPAA film advisory codes, were implemented in January of 1997 and have since been the source of controversy between child advocacy groups, entertainment industry executives, and government regulators. A major rationale for the advisory labels was to assist parents in determining which programs were appropriate or inappropriate for children to watch. Recent data, however, revealed that the majority (59%) of parents let their children watch "whatever they want most or all of the time" (Cantor, Harrison, & Nathanson, 1998, p. 290). If parents are letting children watch whatever they want, are children using the advisory codes to make viewing choices?

The majority of research on advisory labels has not focused attention specifically on children and their uses of the ratings. Most research has addresses older teenagers or parents (Greenberg, Ableman, & Cohen, 1990; Wurtzel & Surlin, 1978). It is important at this point to examine child audiences and to explore if and how they are making viewing choices. The purpose of this study is to assess children's understanding of the age-categorized television advisory codes and to examine how children may be using the advisory labels to select and/or avoid certain programs.

### Background

According to a recent poll, 89% of adult viewers were aware of the television advisory labels; however, 51% did not feel the labels were explained well enough (Salvoza, 1997).

Although little research has given attention to children's understanding and uses of advisory labels and their effect on children's television viewing selections, much emphasis has been placed on the

influential impact of parental involvement in child viewing (Desmond, Singer, & Singer, 1990; Desmond, Hirsch, Singer & Singer, 1987; Bower, 1985; Gross & Walsh, 1980). Recent surveys have examined the understanding, preferences and uses of the television advisory labels among parents, but responses reveal that parents have limited understanding of the system and are not using the ratings (Salvoza, 1997). If adults report a low level of understanding of the ratings, use of the ratings as part of household viewing rules is questionable.

Mixed results have been reported on whether parents are placing restrictions on what their children can and cannot watch (Alexander, Wartella, & Brown, 1981; Anderson, Mead, & Sullivan, 1986; Bechtel, Achelpohl, & Akers, 1972; Robinson, 1972b; Robinson, 1977). Many parents have reported that they "never" or "only occasionally" assert any regulations on their child's television viewing habits or their choices in programs; however, studies have shown that parents place more restrictions and regulations on girls rather than on boys (Comstock & Paik, 1991, p. 51; Desmond, Hirsch, Singer & Singer, 1987; Gross & Walsh, 1980). Little evidence has been found to suggest that parental restrictions strongly influence children's television viewing habits, but results do suggest that parental participation and involvement with the child may help children to avoid certain programs containing violence (Cantor, Harrison, & Nathanson, 1998). In other words, when parents actively watch programs with their child and discuss the particular content, the child is less likely to watch those programs with violent content, but overall parental co-viewing with children has been found to be low.

Very little scholarly research has been conducted on the MPAA age-categorized rating system for television with the exception of the National Television Violence Study, which included testing of several different rating systems: the MPAA film advisory labels (G, PG, PG-

13, R), "parental discretion" labels, "viewer discretion" labels and violence labels (Cantor, J., Harrison, K., & Nathanson, A., 1998). The study found that the words "parental discretion advised" increased younger boys' interest in the program; however, it decreased the interest of younger girls. In testing the effects of the words "viewer discretion advised," the study found no effect on younger children (age 5-9). Older boys', rather than girls', interest increased with the more restrictive rating; however, these results were only marginally significant. The tests on the MPAA film ratings revealed that older children perceived a rating of "R" to include more violence in the program than in any other rating code. The MPAA film ratings had no effect on the interest levels of younger children (age 5-9); however, both older boys' and girls' interest increased in movies with the more restrictive labels. Older boys' (age 10-15) interest peaked when the rating was PG-13, while older girls' (age 10-15) interest peaked when the advisory label was rated R (Cantor, Harrison, & Nathanson, 1998). This finding, however, was inconsistent with an earlier finding that older boys' interest peaked with a rating of PG-13 or R, while older girls' interest peaked when the rating was PG-13 (Cantor & Harrison, 1997). The authors cited a difference in samples and dependent measures between the two studies that draw into question the later finding that girls interest peaked with R ratings (Cantor, Harrison, & Nathanson, 1998). The overall findings of the National Television Violence Study revealed that more restrictive labels attracted some children to programs; however, not all ratings attracted attention (Cantor, Harrison & Nathanson, 1998). Attraction to age-inappropriate ratings has been termed the "forbidden fruit" effect.

The "forbidden fruit" hypothesis evolved from the psychological theory of reactance. Reactance theory focuses on the limitations of free behaviors, which are behaviors that are

realistically possible and that the individual knows he/she may engage in with free will and no retribution. Reactance theory explains that when freedom to choose or participate in a behavior is restricted, individuals will actively seek to regain their freedom (Brehm & Brehm, 1981). In an attempt to regain their freedom, individuals may partake in the restrictive behavior or the "forbidden fruit." In essence, the advisory labels may serve to enhance the appeal to engage in the behavior of watching a particular program if it is rated inappropriate for a child's age. Cantor, Harrison, & Nathanson (1998) found that children had considerably more interest in programs rated for older children and/or those labeled "parental discretion advised" (p. 272). The words "parental discretion advised" also increased interest in younger boys but not younger girls. It is possible that younger girls were using the discretion labels as a deterring device or what has been termed the "tainted fruit" effect.

The National Television Violence Study (1998) found support for the forbidden fruit theory, but it did not address the issue of tainted fruit effects. Based upon reactance theory, tainted fruit theory posits that restrictive labels will serve to inhibit the desired behavior. In other words, the advisory labels would serve to enhance avoidance of a particular program that is rated as inappropriate for that particular viewing age.

Based upon the forbidden fruit and the tainted fruit theories, the age-categorized television advisory labels may be serving dual needs for children. The ages of children may play an important role in determining if the advisory codes are creating a forbidden fruit effect or a tainted fruit effect. In certain stages of a child's life, the advisory labels may not be serving any function, and selection of programs may be only based on program preference. Christenson (1992) found that restrictive advisory labels on albums, tapes, and CDs were not viewed as more appealing to

adolescents. It is therefore important to examine children at different developmental stages in their life. According to the psychological stages of child development, the ages between six and twelve are extremely important stages, especially the ages just prior to adolescence when children begin to explore independence and assimilate identifications in order to fit into society (Bee, 1981).

### Rationale

Children's understanding of age-categorized television advisory labels is of primary importance if the ratings are to be used as intended. In addition to the overall importance of understanding the ratings, the tainted and/or forbidden fruit effects depend at least minimally on awareness of the rating label as being restrictive. Along with the extent of children's understanding of the ratings, the restrictions placed upon viewing behavior are important in determining the existence of tainted or forbidden fruit. If parents are not watching television with their children and are not asserting regulations on their children's viewing habits, as demonstrated in previous literature, it is important to examine how children are making their own viewing selections and what type of programs they are being drawn to or deterred against. Despite low overall parental restrictions, research has shown that parents place more restrictions on the viewing choices of girls than boys, which raises a vital gender issue in determining whether girls and boys differ in their use of advisory labels. It is important to determine whether the television advisory labels serve to caution children against inappropriate programs and/or whether the advisory labels serve to attract viewing selection.

Although different ages in the psychological developmental process may reveal differences in the way children use the advisory labels, the ages just prior to adolescence (9-11) are



particularly critical because it is during this stage when children begin to explore their independence and freedoms. This is also a peak age range for overall television viewing. Given the combination on high viewing levels and a need to explore their independence, the potential for tainted and/or forbidden fruit effects is high.

Children's understanding and use of the advisory labels, parental restrictions, and a key developmental stage of a child's life are an important combination of factors that warrant examination. Based on these issues, the aspects of reactance theory (forbidden fruit and tainted fruit effects) and the limited amount of research on children's uses of advisory labels, the following research questions are proposed:

Question 1: Do children understand the advisory labels?

Question 2: According to children, do parents set regulations on children's viewing choices based upon the advisory labels and are more restrictions placed on girls than boys?

Question 4: Do girls, more than boys, use the advisory labels to avoid particular programs?

Question 5: Do boys, more than girls, rank more restrictive programs as being "most likely to watch"?

## Method

### Participants

A total of 203 students from fourth and fifth grade public school classes participated in the study, including 100 students from six schools in southwest Missouri and 103 students from four schools in Petaluma, California. There were 99 fourth graders including 51 boys and 48 girls, and 104 fifth graders including 52 boys and 52 girls. The mean age of the participants was 10.30

years, with boys at 10.29 years, girls at 10.30 years, fourth graders at 9.75 years and fifth graders at 10.82 years. Average enrollment across the six Missouri schools was 99% Caucasian and enrollment across the four California schools was 81% Caucasian, 14% Hispanic, 3% Asian, and 2% African American. Average participation in the free or reduced price lunch program for the Missouri schools was 31% and for the California schools was 11%, compared to a national average of 41%. To minimally qualify for the national school lunch program, household income was at or below 185% of the poverty level. Self-reports of television viewing among the participants averaged 2.80 hours per day ( $SD = 1.90$ ), with boys watching 2.95 hours ( $SD = 2.20$ ), girls watching 2.64 hours ( $SD = 1.53$ ), fourth graders watching 2.81 hours ( $SD = 2.13$ ), and fifth graders watching 2.79 hours ( $SD = 1.66$ ).

### Measurement Instrument

The measurement instrument was a paper and pencil questionnaire consisting of short answer and Likert-scale items that took approximately 10 minutes to complete. Three of the items were designed to measure understanding of the age-categorized television rating codes by asking participants to describe the difference between TV-Y and TV-Y7, TV-G and TV-PG, and TV-14 and TV-M respectively. Two items addressed the likelihood of viewing programs with certain ratings by instructing participants as follows: "If you could watch any of these shows, rank the following ratings for programs you are least likely to watch to those you are most likely to watch." Participants ranked each of the age-based ratings of TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-M from one to six and each of the content descriptions of No Offensive Content, Violent Content, Sexual Content, and Graphic Language Content from one to four. Other items included seven-point Likert-scale questions with open-ended requests for explanations on whether

parents made rules about television viewing based on the rating codes, whether program ratings were used to select programs, whether program ratings were used to avoid programs, and how much participants liked the age-categorized rating system.

### Procedure

The questionnaire was administered during normal class times between April 22, 1997 and May 22, 1997. Parental permission forms were received for all participants. All classes were instructed similarly that participation was voluntary and that the purpose of the study was to address the use and awareness of the television program rating system. A cardboard graphic was used to briefly explain how to answer the Likert-scale questions. In order to keep all students on task and to minimize differences in reading speed and comprehension levels, each survey item was read to the classes with explanations of potentially confusing terminology. An example was the explanation of the term "graphic language" to mean bad language. The rating codes, however, were not defined and care was taken not to give information that would lead students toward particular answers.

### Results

To test whether the participants from the two regions of the country differed significantly on the relevant research question measures,  $t$  tests were performed and no significant differences at the  $p < .05$  level were found for knowledge of the rating system, parental rules about watching television, use of the ratings to select programs, use of the ratings to avoid programs, likeliness of watching programs with each of the age-categorized television ratings, likeliness of watching programs with content descriptions of No Offensive Content, Violent Content, and Graphic Language Content, and preference for the rating system. An exception was that the groups

differed significantly on likeliness of watching programs with the description of Sexual Content ( $t = 3.19$ ,  $df = 190.42$ ,  $p = .002$ , equal variances not assumed) with California students indicating a higher likeliness of viewing ( $M = 2.01$ ,  $SD = 1.16$ ) than those in Missouri ( $M = 1.52$ ,  $SD = 0.97$ ).

#### Research Question 1: Understanding of Ratings

The percent of children who accurately distinguished between pairs of age-categorized television rating codes was 48% ( $n = 98$ ) for TV-Y versus TV-Y7, 38% ( $n = 77$ ) for TV-G versus TV-PG, and 18% ( $n = 37$ ) for TV-14 versus TV-M. Forty percent ( $n = 81$ ) of the participants did not accurately distinguish between any of the three pairs, 30 % ( $n = 57$ ) accurately distinguished between only one pair, 20% ( $n = 40$ ) accurately distinguished between two pairs, and 12% ( $n = 25$ ) accurately distinguished between all three pairs. The total number of correct distinctions for the three pairs of age-categorized television rating codes ( $M = 1.04$ ,  $SD = 1.04$ ) did not differ significantly for two-tailed tests between boys and girls or between fourth and fifth grades.

#### Research Question 2: Parental Rules

The existence of parental rules about television viewing based on the age-categorized rating codes (total  $M = 2.77$ ,  $SD = 2.11$ , 1 = strongly no, 7 = strongly yes) did not differ significantly for two-tailed tests between boys and girls or between fourth and fifth grades. A one-tailed test based on the assumption from previous literature (Desmond, Hirsch, Singer, & Singer, 1987; Gross & Walsh, 1980) that girls' viewing would be more restricted than that of boys, however, resulted in a significant difference ( $t = -1.97$ ,  $df = 200$ ,  $p = .026$ ) between boys ( $M = 2.48$ ,  $SD = 2.04$ ) and girls ( $M = 3.06$ ,  $SD = 2.14$ ).

#### Research Question 3: Use of Ratings to Avoid Programs

Use of the age-categorized television rating codes to avoid programs (total  $M = 2.75$ ,  $SD = 2.11$ , 1 = never, 7 = always) also did not differ significantly for two-tailed tests between boys and girls or between fourth and fifth grades. A one-tailed test based on the assumption from previous literature (Cantor, J., Harrison, K., & Nathanson, A., 1997) that boys would be less prone to avoid programs with restrictive ratings, however, resulted in a significant difference ( $t = -1.95$ ,  $df = 200$ ,  $p = .027$ ) between boys ( $M = 2.47$ ,  $SD = 2.09$ ) and girls ( $M = 3.04$ ,  $SD = 2.10$ ) on the use of ratings to avoid programs.

#### Research Question 4: Forbidden and Tainted Fruit Effects

##### Likelihood of viewing programs with age-categorized ratings.

Overall likelihood of watching programs with the age-categorized ratings (1 = least likely and 6 = most likely) was highest for programs with a TV-PG rating ( $M = 4.29$ ,  $SD = 1.41$ ), followed in order by programs with a TV-G rating ( $M = 3.92$ ,  $SD = 1.32$ ), TV-Y7 rating ( $M = 3.61$ ,  $SD = 1.53$ ), TV-14 rating ( $M = 3.52$ ,  $SD = 1.70$ ), TV-Y rating ( $M = 3.41$ ,  $SD = 1.99$ ), and TV-M rating ( $M = 2.54$ ,  $SD = 2.03$ ). A three-way analysis of variance was conducted on Likelihood of Viewing as the dependent variable, Age-Categorized Television Ratings as a within-subjects (repeated measures) factor and Gender and Grade Level as between-subjects factors. Significant differences were found for the main effect of Age-Categorized Television Ratings ( $F = 20.55$ ;  $df = 5, 855$ ;  $p = .000$ ), the interaction of Age-Categorized Television Ratings with Grade Level ( $F = 7.45$ ;  $df = 5, 855$ ;  $p = .000$ ), and the interaction of Age-Categorized Television Ratings with Gender ( $F = 16.57$ ;  $df = 5, 855$ ;  $p = .000$ ). Figure 1 shows that the interaction of Age-Categorized Ratings with Grade Level was the result of fourth graders reporting a greater likelihood to view programs with ratings of TV-Y, TV-Y7, and TV-G; and fifth graders reporting

a greater likeliness to view programs with ratings of TV-14 and TV-M. Figure 2 shows that the interaction of Age-Categorized Ratings with Gender was the result of girls reporting a greater likeliness to view programs with ratings of TV-Y, TV-G and TV-PG; and boys reporting a greater likeliness to view programs with ratings of TV-14 and TV-M. Significant differences between groups on individual ratings are discussed below. No other main effects or interactions were found to be significant for Gender, Grade and Age-Categorized Ratings on Likelihood of Viewing.

Likelihood of viewing programs with content description ratings.

Overall likelihood of watching programs with content description ratings (1 = least likely and 4 = most likely) was highest for programs with a Violent Content rating ( $M = 2.93$ ,  $SD = 0.96$ ), followed in order by No Offensive Content ( $M = 2.83$ ,  $SD = 1.27$ ), Graphic Language Content ( $M = 2.60$ ,  $SD = 0.94$ ) and Sexual Content ( $M = 1.77$ ,  $SD = 1.09$ ). A three-way analysis of variance was conducted on Likelihood of Viewing as the dependent variable, Content Description Ratings as a within-subjects (repeated measures) factor and Gender and Grade Level as between-subjects factors. Significant differences were found for the main effect of Content Description Ratings ( $F = 41.57$ ;  $df = 3, 570$ ;  $p = .000$ ) and the interaction of Content Description Ratings with Gender ( $F = 12.05$ ;  $df = 3, 570$ ;  $p = .000$ ). Figure 3 shows that the interaction of Content Description Ratings with Gender was the result of girls reporting a greater likelihood to view programs with ratings of No Offensive Content, and boys reporting a greater likelihood to view programs with ratings of Violent Content and Sexual Content. No other main effects or interactions were found to be significant for Gender, Grade and Content Ratings on Likelihood of Viewing.

Grade differences in likeliness of viewing for individual age-categorized ratings.

The likeliness of watching programs with individual age-categorized ratings differed significantly between fourth and fifth grades for the TV-Y, TV-Y7, TV-14, and TV-M ratings, but not for the TV-G and TV-PG ratings. The likeliness of watching a program with the TV-Y rating was significantly greater ( $t = 2.26$ ,  $df = 180.27$ ,  $p = .025$ , equal variances not assumed) for fourth graders ( $M = 3.73$ ,  $SD = 1.84$ ) than fifth graders ( $M = 3.08$ ,  $SD = 2.09$ ). The likeliness of watching a program with the TV-Y7 rating was also significantly greater ( $t = 2.68$ ,  $df = 182$ ,  $p = .008$ ) for fourth graders ( $M = 3.90$ ,  $SD = 1.56$ ) than fifth graders ( $M = 3.31$ ,  $SD = 1.45$ ). The likeliness of watching a program with the TV-14 rating was significantly greater ( $t = -3.81$ ,  $df = 182$ ,  $p = .000$ ) for fifth graders ( $M = 3.98$ ,  $SD = 1.70$ ) than fourth graders ( $M = 3.05$ ,  $SD = 1.59$ ). The likeliness of watching a program with the TV-M rating was also significantly greater ( $t = -2.91$ ,  $df = 178.70$ ,  $p = .004$ , equal variances not assumed) for fifth graders ( $M = 2.97$ ,  $SD = 2.09$ ) than fourth graders ( $M = 2.11$ ,  $SD = 1.87$ ).

Similar results were found for likeliness of watching programs with individual age-categorized ratings between fourth and fifth grades after restricting the analysis to only those who accurately distinguished between two of the three pairs of rating codes. An exception was that no significant difference was found for the TV-Y rating. For the restricted analysis, the likeliness of watching a program with the TV-Y7 rating was significantly greater ( $t = 2.38$ ,  $df = 61$ ,  $p = .020$ ) for fourth graders ( $M = 4.24$ ,  $SD = 1.41$ ) than fifth graders ( $M = 3.35$ ,  $SD = 1.53$ ). The likeliness of watching a program with the TV-14 rating was significantly greater ( $t = -2.26$ ,  $df = 62$ ,  $p = .027$ ) for fifth graders ( $M = 4.03$ ,  $SD = 1.70$ ) than fourth graders ( $M = 3.11$ ,  $SD = 1.50$ ). The likeliness of watching a program with the TV-M rating was also significantly greater ( $t = -2.88$ ,  $df$

= 61,  $p = .006$ ) for fifth graders ( $M = 3.03$ ,  $SD = 2.09$ ) than fourth graders ( $M = 1.68$ ,  $SD = 1.49$ ).

Gender differences in likeliness of viewing for individual age-categorized ratings. The likeliness of watching programs with individual age-categorized ratings differed significantly between boys and girls for the TV-G, TV-14 and TV-M ratings, but not for the TV-Y, TV-Y7 and TV-PG ratings. The likeliness of watching a program with the TV-G rating was significantly greater ( $t = -3.40$ ,  $df = 183$ ,  $p = .001$ ) for girls ( $M = 4.26$ ,  $SD = 1.28$ ) than boys ( $M = 3.61$ ,  $SD = 1.30$ ). The likeliness of watching a program with the TV-14 rating was significantly greater ( $t = 2.63$ ,  $df = 182$ ,  $p = .009$ ) for boys ( $M = 3.83$ ,  $SD = 1.69$ ) than girls ( $M = 3.17$ ,  $SD = 1.66$ ). The likeliness of watching a program with the TV-M rating was also significantly greater ( $t = 2.78$ ,  $df = 180$ ,  $p = .006$ , equal variances not assumed) for boys ( $M = 2.94$ ,  $SD = 2.13$ ) than girls ( $M = 2.12$ ,  $SD = 1.83$ ).

Similar results were found for likeliness of watching programs with age-categorized ratings between boys and girls after restricting the analysis to only those who accurately distinguished between two of the three pairs of rating codes. An exception was that no significant difference was found for the TV-M rating. For the restricted analysis, the likeliness of watching a program with the TV-G rating was significantly greater ( $t = -2.57$ ,  $df = 61$ ,  $p = .013$ ) for girls ( $M = 4.13$ ,  $SD = 1.14$ ) than boys ( $M = 3.30$ ,  $SD = 1.40$ ). The likeliness of watching a program with the TV-14 rating was significantly greater ( $t = 2.03$ ,  $df = 62$ ,  $p = .047$ ) for boys ( $M = 4.00$ ,  $SD = 1.55$ ) than girls ( $M = 3.17$ ,  $SD = 1.71$ ).

Gender differences in likeliness of viewing for individual content ratings.

The likeliness of watching programs with content descriptions (1= least likely and 4 =



most likely), as opposed to the age-categorized ratings, differed significantly between boys and girls for the No Offensive Content, Violent Content, and Sexual Content ratings, but not for the Graphic Language Content rating. The likeliness of watching a program with the No Offensive Content rating was significantly greater ( $t = -4.14$ ,  $df = 195$ ,  $p = .000$ ) for girls ( $M = 3.20$ ,  $SD = 1.22$ ) than boys ( $M = 2.47$ ,  $SD = 1.23$ ). The likeliness of watching a program with the Violent Content rating was significantly greater ( $t = 3.85$ ,  $df = 193$ ,  $p = .000$ ) for boys ( $M = 3.18$ ,  $SD = 0.95$ ) than girls ( $M = 2.66$ ,  $SD = 0.91$ ). The likeliness of watching a program with the Sexual Content rating was also significantly greater ( $t = 3.19$ ,  $df = 196$ ,  $p = .002$ ) for boys ( $M = 2.00$ ,  $SD = 1.15$ ) than girls ( $M = 1.52$ ,  $SD = 0.98$ ). No significant differences were found between fourth and fifth grades on the likeliness of watching programs with any of the content descriptions.

### Discussion

The results indicate a low ability to distinguish between pairs of age-categorized television ratings, especially for the distinction between TV-14 and TV-M. Given that 40% of the participants could not make accurate distinctions between any of the pairs of rating codes, the assumption that there is a general understanding of these television ratings resulting from their similarity to the MPAA movie rating codes is brought into question. Although not measured directly, an overall awareness of the hierarchy of the ratings was apparent based on the fact that the likeliness of viewing programs with individual ratings did not change drastically after restricting the analysis to only participants who could distinguish between two of the three rating pairs. If fourth and fifth graders have only a general understanding of the sequential order of the ratings, understanding of the ratings by younger children is highly questionable and should be addressed in future research. Parental understanding of the rating codes is also a suitable topic for

future research given the low level of understanding of the ratings by children in an age range that watches more television than their parents.

The reported existence of parental rules utilizing the television rating codes was also very low with 69% of the responses below the mid point of the no/yes rating scale. Despite the low overall level, girls reported significantly more parental rules than did boys, which is consistent with the findings of Desmond, Hirsch, Singer, & Singer (1987) and Gross & Walsh (1980). Considering these findings in conjunction with the previous work of Cantor, Harrison, & Nathanson (1998) that girls' interest in viewing programs decreased with parental discretion advisories for the programs, it can be expected that the "tainted fruit" effect of television rating codes (as opposed to "forbidden fruit") would apply more to girls. In other words, girls can be expected to avoid programs with restrictive ratings more so than boys. The tainted fruit effect of television program ratings for girls was directly supported in this study by significantly higher reported use of the rating codes by girls to avoid programs. However, overall reported use of the rating codes to avoid programs was low with 68% of the responses below the mid point of the no/yes scale.

The forbidden fruit effect of television rating codes for boys was supported by their significantly greater likeliness of viewing programs with ratings of TV-14, TV-M (for the non-restricted sample), Violent Content, and Sexual Content. The magnitude of this effect, however, should be evaluated keeping in mind that boys rated TV-M and Sexual Content lowest overall in likeliness of viewing and TV-PG and Violent Content highest in overall likeliness of viewing. Girls, on the other hand, reported significantly greater likeliness of viewing programs with ratings of TV-G and No Offensive Content. Hence, both content-descriptive and age-categorized ratings

supplied evidence for the forbidden fruit effect of program ratings for boys and the tainted fruit effect for girls. A possible reason that neither effect seemed to apply to the rating of Graphic Language is that graphic language may not be considered as forbidden as it once was, both on television and among pre-adolescents.

This study has begun to address the extent of children's understanding of the television program rating system. It serves a heuristic roll of addressing unexplored issues and opening many questions for future inquiry. Important questions remain concerning the magnitude of these effects and why the forbidden fruit effect would apply primarily to boys and the tainted fruit effect primarily to girls. One explanation of gender differences for the tainted/forbidden fruit effects is sex-role enculturation concerning adherence to rules in which girls may become more prone to compliance and boys to defiance. But given the low overall level of parental oversight of television viewing of boys and girls, it is probable that content preference accounts for the likeliness of viewing programs with certain ratings much more than rule adherence or avoidance. This is not to say, however, that one is independent of the other, because restrictive ratings for age-inappropriate material imply rule adherence and also serve as guides to program content. Whether content preference or rule adherence/avoidance is the driving force behind likeliness of viewing a program, the fact remains that when forced to make viewing choices solely on the basis of program ratings, pre-adolescent boys chose programs rated for age-inappropriate material significantly more so than girls and this represents a clearly unintended effect of the television program rating system.

The potential effectiveness of any television program rating system depends on the ability

consistent with their intended purpose. To some extent, however, both of these criteria are brought into question by this research. The lack of evidence for understanding of the ratings, for overall use of the ratings, and for household viewing rules, in conjunction with the forbidden fruit effect of the ratings on pre-adolescent boys suggests that the ratings might be inconsequential or potentially detrimental. On the other hand, there is evidence for constructive use of the ratings by pre-adolescent girls, and it can be expected that use of the ratings will increase with understanding and that understanding will increase with time and with the potential addition of content descriptions to the age-categorized ratings. Also, the negative potential of the forbidden fruit effect assumes that pre-adolescent boys would not be restricted by other means (like the V-chip) from viewing inappropriate programs. The negative impact of the forbidden fruit effect must be weighed against the positive impact of program ratings on pre-adolescent girls and on parental awareness of the content of programs. Whatever advisory system is finally adopted, it must be comprehensive and easily used by both parents and children, and parental involvement may be the key to its overall effectiveness.

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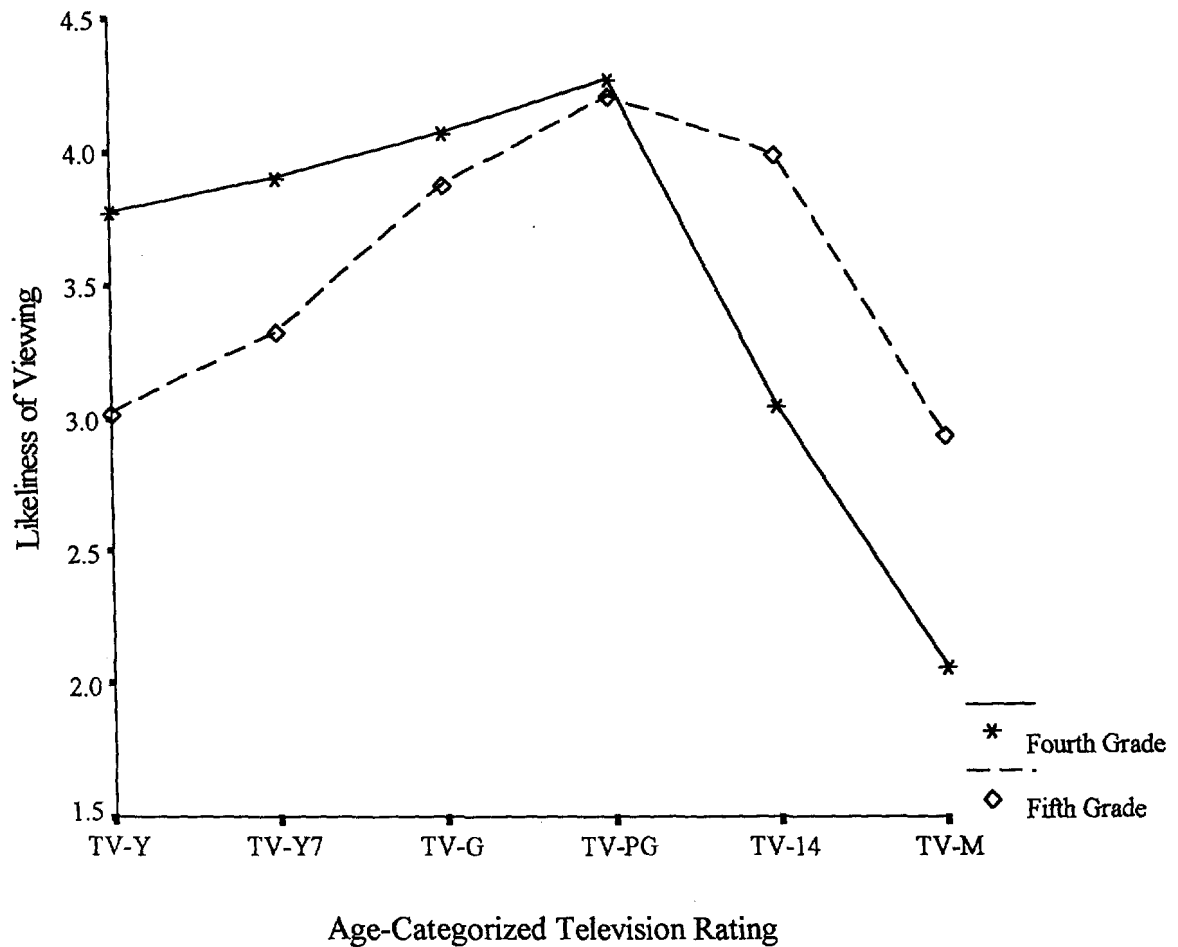
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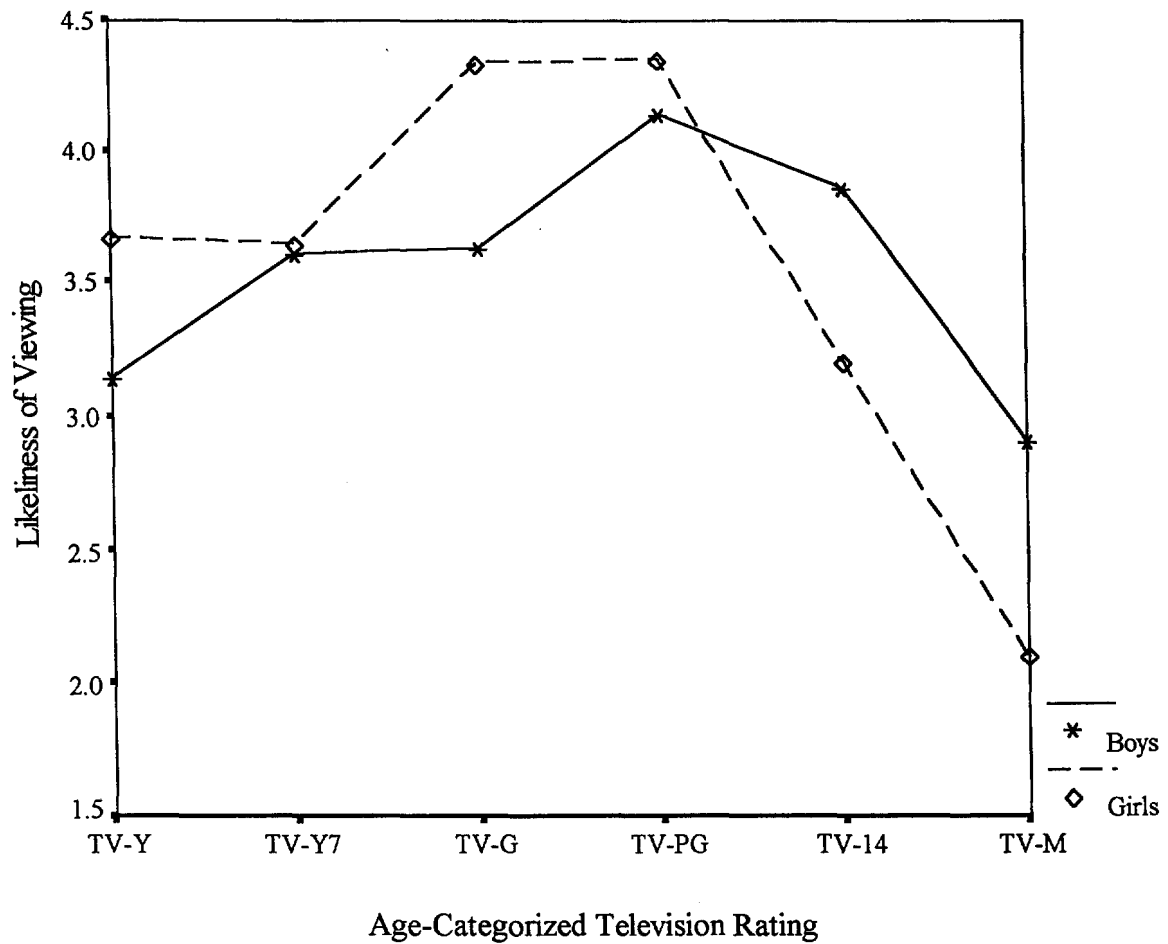
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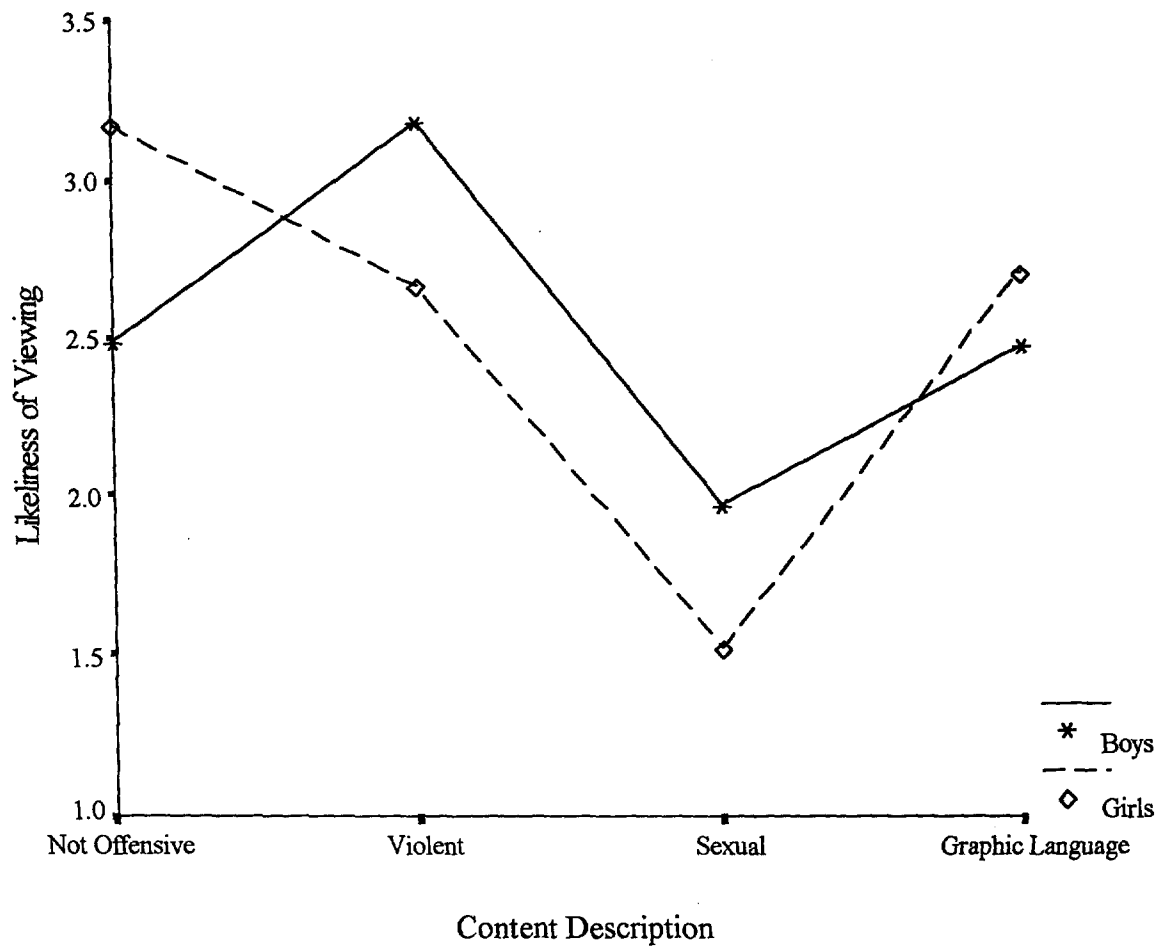


**Figure 1.** Interaction effect of grade and age-based ratings for likeliness of viewing television programs (1 = least likely and 6 = most likely).



**Figure 2.** Interaction effect of gender and age-based ratings for likeliness of viewing television programs (1 = least likely and 6 = most likely).





**Figure 3.** Interaction effect of gender and content ratings for likeliness of viewing television programs (1 = least likely and 4 = most likely).